

REMARKS

In the Office Action dated March 10, 2006, the Examiner rejected claims 1, 3-7, and 9-15 under 35 U.S.C. §103(a) as being unpatentable over *Allmond et al.* (U.S. Patent No. 6,072,803) in view of *Sgambati* (U.S. Pat. No. 5,606,443). Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Allmond* in view of *Sgambati* and in further view of *Sibigtroth et al.* (U.S. Pat. No. 5,251,304). Further, claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Allmond* in view of *Sgambati* and in further view of *Douma et al.* (U.S. Pat. No. 6,370,550). The Examiner further objected to the drawings and the specification. Claims 1-7 and 10-15 have been amended. Support for the amendments may be found on page 11, lines 18-31 and page 12, lines 1-22 of the specification, and in Figures 2 and 3. New claim 16 has been added, which is supported by Figure 2. For the reasons given below, Applicants respectfully submit that the reference fails to disclose, teach, or even suggest the presently claimed invention, and request that the rejection of the claims be withdrawn.

Objection to the Drawings

The Examiner objected to the drawings because Figure 1 includes the reference numeral "40," which is not mentioned in the description. Applicants have amended the specification at page 6, line 19 to include a description of reference numeral 40. The outputs of audio receiver 38 are speakers 40. Therefore, the objection is moot and should be withdrawn.

Applicants have also enclosed a Replacement Sheet for Figure 4 which adds the label "Figure 4."

Objections to the Specification

The Examiner objected to the title as being not descriptive. Applicants have amended the title to be more descriptive of the invention. Thus, the objection is moot and should be withdrawn.

The Examiner further objected to the use of the trademarks SONY, PIONEER, ATMEL, and KENWOOD. Applicants have amended the specification to capitalize the trademarks and accompany them with the generic terminology. Thus, the objection is moot and should be withdrawn.

Present Application

The present application provides an apparatus and method for using a single control port for controlling an A/V device in accordance with a variety of different protocols. A main processor communicates a configuration instruction to an interface controller. The interface controller uses the configuration instruction to select a protocol driver and to process signals to a control signal processor. The signals to the control signal processor include an output signal, an input signal, a direction control line, and a modulation control bus comprising a modulation carrier signal, a modulation enable line, and a modulation polarity line. The control signal processor uses the direction control line to determine whether to output data or input data. The control signal processor uses the modulation enable line to determine whether to couple the modulation carrier signal on a transition from one digital level to another. The control signal

processor further comprises an IR modulator unit operable to modulate the data output line in accordance with the modulation polarity line. The modulation polarity line operates in a normally high state or in a normally low state to modulate the output signal in accordance with the selected protocol driver.

Rejection under §103(a)

The Examiner rejected claims 1, 3-7, and 9-15 under 35 U.S.C. §103(a) as being unpatentable over *Allmond* in view of *Sgambati*. Applicants submit that neither *Allmond* nor *Sgambati* teach or suggest a modulation control bus comprising a modulation polarity line, a modulation enable line, and a modulation carrier signal, a modulation polarity line capable of being set to a state in accordance with the selected protocol driver, or a modulation carrier signal capable of being set to a frequency in accordance with the selected protocol driver as recited in amended claims 1, 10, and 15. *Allmond* teaches a communication protocol detection system for enabling a network system to detect and interface one or more network devices, and *Sgambati* discloses a method and apparatus for controlling demonstration of home entertainment audio and/or video equipment.

The Examiner admits that *Allmond* does not disclose a modulation control line or a modulator unit, and states that *Sgambati* teaches modulation control in accordance with configuration instructions. However, *Sgambati* fails to disclose or suggest a modulation control bus comprising a modulation polarity line, a modulation enable line, and a modulation carrier signal. *Sgambati* further fails to disclose or suggest the ability to change the modulation carrier

signal frequency and the modulation polarity line polarity in order to operate in accordance with a selected protocol driver. Thus, the rejection is improper and should be withdrawn.

Regarding claims 8, 9, and 16, the prior art fails to disclose or suggest a single port dedicated to both an S-link protocol driver and a wired or wireless IR protocol driver. Rather, *Sgambati* teaches separate ports dedicated to separate protocol drivers. Therefore, for this further reason, the rejection is improper and should be withdrawn.

Moreover, to establish a prima facie case of obviousness under §103 there must be some suggestion or motivation to combine or modify the cited references, and the cited references must teach or suggest all the claim limitations. (MPEP § 2142). Applicants contend that no motivation exists for combining *Allmond* and *Sgambati* to obviate the present claims. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. (MPEP § 2143). Thus, “[i]n determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” (MPEP § 2143.01). Consequently, to make a successful §103(a) obviousness rejection, the Office must show some objective teaching in the prior art or explain how one of ordinary skill in the art would be motivated to combine the relevant teachings. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Applicants submit that there is no teaching or suggestion within *Allmond* or *Sgambati* to make the proposed combination. *Allmond* is directed toward a data communication protocol

detection system for enabling a network system to detect and interface one or more network devices, and *Sgambati* is directed toward a method and apparatus for controlling demonstration of home entertainment audio and/or video equipment. None of the references include a suggestion or motivation to combine with any teachings of the other references.

Furthermore, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. (MPEP § 2143). The combination of elements in a manner that reconstructs Applicant's invention only with the benefit of hindsight is insufficient to present a *prima facie* case of obviousness. *See In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992).

The remaining references cited by the Examiner, *Sibigtroth* and *Douma*, fail to remedy the deficiencies of *Allmond* and *Sgambati*, and thus the rejections of all of the pending claims are improper and should be withdrawn.


Conclusion

In view of the foregoing, Applicants respectfully request that all of the rejections of the pending claims be withdrawn. Applicants hereby earnestly solicit an early Notice of Allowance. If for any reason, the application is not considered to be in condition for allowance on the next Office Action and an interview would be helpful to resolve any remaining issues, the Examiner is requested to contact the undersigned at (312) 913-3334.

Respectfully submitted,

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